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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/853,722
Filing Date: May 14, 2001
Appellant(s): KLOS ET AL.

William E. Lyddane
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/17/08 appealing from the Office action mailed 06/15/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6463079	Sundaresan et al.	10-2002
6640239	Gidwani	10-2003
5926472	Byers	7-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-7, 18-19 and 22-23 are rejected under 35 U.S.C. 103(a) as being obvious over Sundaresan et al. (US 6,463,079) in view of Gidwani (US 6,640,239).

For claim 1, Sundaresan et al. disclose processing orders for high bandwidth connections comprising:

receiving a service order at a provisioning server (figure 1, reference 190, col. 5, lines 21-32), the service order requesting implementation of the DSL service, and

comprising provisioning data (figure 11, reference steps 1120-1130)(col. 19, lines 35-37); and

identifying a plurality of facilities (figure 1, references 170-A and 170-B) assigned to implement the service order based on the provisioning data (col. 5, lines 21-30), the plurality of facilities (figure 1, references 170-A and 170-B) comprising at least a remote terminal connectable to a terminal of the DSL subscriber (col. 19, lines 52-56).

However, Sundaresan et al. do not expressly disclose determining an interface corresponding to each of the plurality of assigned facilities, each interface converting at least a portion of the provisioning data into a specific protocol corresponding to the assigned facility; and

configuring each of the plurality of facilities, using the corresponding interface, to implement the service order based on the provision data.

In an analogous art, Gidwani discloses determining an interface corresponding to each of the plurality of assigned facilities, each interface converting at least a portion of the provisioning data into a specific protocol corresponding to the assigned facility (figure 2A, col. 24, lines 4-36, and col. 27, line 62 to col. 28, line 7); and

configuring each of the plurality of facilities, using the corresponding interface, to implement the service order based on the provision data (figure 2A, col. 24, lines 4-36).

One skilled in the art would have recognized the determining an interface corresponding to each of the plurality of assigned facilities, each interface converting at least a portion of the provisioning data into a specific protocol corresponding to the assigned facility, and would have applied Gidwani's UIP server in Sundaresan et al.'s

service order. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Gidwani's apparatus and method for intelligent scalable switching network in Sundaresan et al.'s processing orders for high bandwidth connections with the motivation being to provide the scalable intelligent multimedia network (col. 23, line 66-67).

For claim 2, Sundaresan et al. disclose determining at least one path interconnecting the plurality of facilities and a subscriber port of the remote terminal, the subscriber port being configured to connect with the DSL subscriber terminal (figure 19, reference steps 1910,1920, 1930, 1940 and 1950, col. 29, lines 3-34).

For claim 3, Sundaresan et al. disclose determining and implementing a cross-connection in at least one of the plurality of facilities to enable the at least one path interconnecting the plurality of facilities and the subscriber port (figure 19, col. 29, lines 3-34).

For claim 4, Sundaresan et al. disclose storing configuration data in a system database, the configuration data comprising data identifying the plurality of facilities assigned to implement the service order, the at least one path interconnecting the plurality of facilities and the subscriber port of the remote terminal, and the cross-connection in the at least one of the plurality of facilities (figure 19, col. 29, lines 3-34).

For claim 5, Sundaresan et al. disclose wherein the provisioning data is derived based on the provisioning data indication in the service order (figure 17, reference step 1710, col. 25, lines 59-65).

For claim 6, Sundaresan et al. disclose wherein the service order indicates the provisioning data by at least one of providing the provisioning data and providing a profile identification that corresponds to parameters that define the DSL service (figure 9, col. 15, lines 55-65, and figure 17, reference step 1710 and 1720, col. 25, lines 59-67).

For claim 7, Sundaresan et al. disclose determining whether the service order comprises erroneous data; and when the service order is determined to comprise erroneous data, displaying at a graphical user interface an error message, which identifies the erroneous data, and receiving input from the graphical user interface to correct the erroneous data (figure 12A, col. 19, lines 29-34).

For claim 18, Sundaresan et al. disclose processing orders for high bandwidth connections comprising:

a provisioning server (figure 1, reference 190, col. 5, lines 21-32) configured to receive a service order for implementing the DSL service (figure 11, reference steps 1120-1130)(col. 19, lines 35-37);

a plurality of network facilities (figure 1, references 170-A and 170-B) connectable to the server (figure 1, reference OSS 190, col. 5, lines 21-32); and

a system database configured to store the service order (figure 7A, col. 20, lines 34-35); and wherein the provisioning server is further configured to determine provisioning facilities, from among the plurality of network facilities, assigns to implement the service order (col. 5, lines 21-30, and figure 17, reference steps 1710, 1720 and 1730, col. 25, line 59 to col. 26, line 30), the provisioning facilities comprising

at least one remote terminal, connectable to a terminal of a subscriber of the DSL service (col. 19, lines 52-56).

However, Sundaresan et al. do not expressly disclose a plurality of interfaces identifiers for interfaces corresponding to the plurality of network facilities; and

wherein the provisioning server is further configured to direct configuration of each of the provisioning facilities, using at least one of the interface identifiers retrieved from the system database corresponding to each of the provisioning facilities, enabling communication with the provisioning facilities, to implement the DSL service based on the service order.

In an analogous art, Gidwani discloses a plurality of interfaces identifiers for interfaces corresponding to the plurality of network facilities (figure 2A, col. 24, lines 4-36, and col. 27, line 62 to col. 28, line 7); and

wherein the provisioning server is further configured to direct configuration of each of the provisioning facilities, using at least one of the interface identifiers retrieved from the system database corresponding to each of the provisioning facilities, enabling communication with the provisioning facilities, to implement the DSL service based on the service order (figure 2A, col. 24, lines 4-36).

One skilled in the art would have recognized the plurality of interfaces identifiers for interfaces corresponding to the plurality of network facilities, and would have applied Gidwani's UIP server in Sundaresan et al.'s service order. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Gidwani's apparatus and method for intelligent scalable switching network in

Sundaresan et al.'s processing orders for high bandwidth connections with the motivation being to provide the scalable intelligent multimedia network (col. 23, lines 66-67).

For claim 19, Sundaresan et al. disclose the remote terminal comprising a subscriber port, the subscriber port being configured to connect with a DSL subscriber terminal, wherein the server enables at least one path interconnecting the plurality of facilities and the subscriber port of the remote terminal (figure 19, col. 29, lines 3-34).

For claim 22, Sundaresan et al. disclose a graphical user interface connected to the server and configured to interface with the server, the system database and at least one of the plurality of network elements (figure 5, col. 8, lines 5-26).

For claim 23, Sundaresan et al. disclose when the service order comprises erroneous data, the graphical user interface displays an error message, which identifies the erroneous data, and receives input from an operator in response to the erroneous data (figure 12A, col. 19, lines 29-34).

4. Claims 8-17, 20-21 and 24-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundaresan et al. (US 6,463,079) in view of Gidwani (US 6,640,239). further in view of Byers (US 5,926,472).

For claims 8, 12-14, 20 and 27-29, Sundaresan et al. disclose processing orders for high bandwidth connections comprising:

receiving a service order at a common server (figure 1, reference 190, col. 5, lines 21-32), requesting set up of the DSL service (figure 11, reference steps 1120-1130)(col. 19, lines 35-37);

converting the service order into provisionable steps (figure 17, reference steps 1710, 1720, 1730 and 1740, col. 25, line 59 to col. 26, line 30);

determining facility assignment data related to each of a plurality of facilities needed to implement the provisionable steps (col. 5, lines 21-30), the facility assignment data comprising identification of at least a remote terminal and a subscriber port, connectable to a terminal of the DSL subscriber (figure 19, col. 29, lines 3-19).

However, Sundaresan et al. do not expressly disclose determining an interface for each of the plurality of facilities, each interface enabling communication with the corresponding one of the plurality of facilities; and

configuring each of the plurality of facilities to implement the service order based on instructions communicated from the common server to each of the plurality of facilities using the corresponding interface.

In an analogous art, Gidwani discloses determining an interface for each of the plurality of facilities, each interface enabling communication with the corresponding one of the plurality of facilities (figure 2A, col. 24, lines 4-36); and

configuring each of the plurality of facilities to implement the service order based on instructions communicated from the common server to each of the plurality of facilities using the corresponding interface (figure 2A, col. 24, lines 4-36).

One skilled in the art would have recognized the determining an interface for each of the plurality of facilities, each interface enabling communication with the corresponding one of the plurality of facilities, and would have applied Gidwani's UIP server in Sundaresan et al.'s service order. Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention, to use Gidwani's apparatus and method for intelligent scalable switching network in Sundaresan et al.'s processing orders for high bandwidth connections with the motivation being to provide the scalable intelligent multimedia network (col. 23, lines 66-67).

Furthermore, Sundaresan et al. in view of Gidwani do not expressly disclose an optical concentrator device connectable to the remote terminal. In an analogous art, Byers discloses an optical concentrator device connectable to the remote terminal (col. 1, lines 43-45).

Sundaresan et al. in view of Gidwani and Byers further disclose the configuring each of the plurality of facilities to implement the service order comprising one of building, deleting or changing at least one virtual path over an optical fiber connection between the remote terminal and the optical concentrator device (col. 29, lines 54-60 as set forth in claims 12 and 27); providing a network side port at the remote terminal configured to connect with the subscriber port; communicating to the optical concentrator device the identity of the network-side port; and configuring the optical concentrator device to support the virtual path to the network-side port of the remote terminal (figure 19, col. 28, line 66 to col. 29, line 39 as set forth in claims 13-14 and 28-29); wherein the at least one of the remote terminal and the optical concentrator device determine and implement a cross-connection to enable the at least one path interconnecting the plurality of facilities and the subscriber port (figure 19, col. 28, line 66 to col. 29, line 39 as set forth in claim 20).

One skilled in the art would have recognized the optical concentrator device connectable to the remote terminal to use the teaching of Byers in the system of Sundaresan et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the optical concentrator device connectable to the remote terminal as taught by Byers in Sundaresan et al. with the motivation being to provide less expensive loops than copper loops by converting switch interfaces to fiber and back to copper at the remote terminal and consist of an optical remote terminal that interfaces with the optical links from the switching system (col. 1, lines 48-52).

For claim 9, Sundaresan et al. disclose formatting data from the service order into a common internal format prior to converting the service order into provisional steps (col. 18, lines 25-28, and col. 18, lines 49-53).

For claim 10, Sundaresan et al. disclose validating an intent of the service order with respect to a state of a port of the remote terminal associated with the DSL subscriber and provisioning the service order in the remote terminal upon successful validation (figure 17, reference steps 1710 and 1720, col. 25, lines 59-66, figure 19, col. 28, line 66 to col. 29, line 46).

For claim 11, Sundaresan et al. disclose identifying errors related to at least one of the service order and the provisioning of the DSL service; and displaying information regarding the errors at a graphical user interface, the graphical user interface being configured to enable a user to analyze and respond to the errors (figure 12A, col. 19, lines 29-34).

For claim 15, Sundaresan et al. disclose the configuring each of the plurality of facilities to implement the service order comprising one of building, deleting or changing at least one cross-connection in at least one of the plurality of facilities (col. 29, lines 54-60).

For claim 16, Sundaresan et al. disclose enqueuing the provisionable steps after determining the facility assignment data related to each of a plurality of facilities needed to implement the provisionable steps; and sequentially dequeuing the provisionable steps for implementation on a scheduled provisioning date, prior to determining the interface for each of the plurality of facilities (col. 17, lines 22-31). .

For claim 17, Sundaresan et al. disclose receiving service profile data related to at least one service from a service provider, the service profile data comprising at least one parameter related to the service order (figure 17, reference step 1710 and 1720, col. 25, lines 59-67);

storing the service profile data in a system database; and configuring each of the plurality of facilities to implement the service order additionally based on the service profile data (col. 19, lines 14-34, and col. 20, lines 26-35).

For claim 21, Sundaresan et al. disclose the system database comprising configuration data that identifies the plurality of facilities assigned to implement the service order, the at least one path interconnecting the plurality of facilities and the subscriber port of the remote terminal, and the cross-connection in the at least one of the plurality of facilities (col. 20, lines 34-35).

For claim 24, Sundaresan et al, disclose processing orders for high bandwidth connections comprising:

a service order entry system configured to receive a service order for the DSL service from a DSL service provider (figure 1, reference 150)(figure 11, reference steps 1120-1130)(col. 19, lines 35-37);

a server (figure 1, reference 190, col. 5, lines 21-32) configured to receive the service order from the service order entry system (figure 11, reference steps 1120-1130)(col. 19, lines 35-37);

a plurality of network facilities (figure 1, references 170-A and 170-B) connectable to the server (figure 1, reference 190, col. 5, lines 21-32) and a terminal of a subscriber of the DSL service (figure 1, references 110-A and 110-B)(col. 29, lines 3-19);

a facility inventory system connected to the server and configured to store facility information regarding each of a plurality of network facilities, the facility information comprising a type, a location and an availability of each of the plurality of network facilities (col. 9, section III. E. Examples of Information maintained by OSS, and col. 25, line 59 to 26, line 30); and

a system database connected to a server (figure 10A, reference 1030) and configured to store data relating to the service (figure 7A, col. 9, lines 45-60, and col. 20, lines 34-35); and

wherein the server (figure 1, reference 190, col. 5, lines 21-32) is further configured to communicate with the facility inventory system to determine provisioning

facilities from among the plurality of network facilities needed to implement the DSL service based on order (figure 17, reference steps 1710, 1720, 1730 and 1740, col. 25, line 59 to 26, line 30), the provisioning facilities comprising at leas one remote terminal having a subscriber port (figure 19, col. 29, lines 3-19).

However, Sundaresan et al. do not expressly disclose a plurality of interfaces corresponding to the plurality of network facilities, the plurality of interfaces enabling communication with the plurality of network facilities; and

wherein the server is further configured to implement configuration of each of the provisioning facilities using a corresponding one of the plurality of interfaces retrieved from the system database to implement the DSL service.

In an analogous art, Gidwani discloses a plurality of interfaces corresponding to the plurality of network facilities, the plurality of interfaces enabling communication with the plurality of network facilities (figure 2A, col. 24, lines 4-36); and

wherein the server is further configured to implement configuration of each of the provisioning facilities using a corresponding one of the plurality of interfaces retrieved from the system database to implement the DSL service (figure 2A, col. 24, lines 4-36).

One skilled in the art would have recognized the plurality of interfaces corresponding to the plurality of network facilities, the plurality of interfaces enabling communication with the plurality of network facilities, and would have applied Gidwani's UIP server in Sundaresan et al.'s service order. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Gidwani's apparatus and method for intelligent scalable switching network in Sundaresan et al.'s processing

orders for high bandwidth connections with the motivation being to provide the scalable intelligent multimedia network (col. 23, lines 66-67).

Furthermore, Sundaresan et al. in view of Gidwani's do not expressly disclose at least one optical concentrator device, the remote terminal being connectable to the optical concentrator device via an optical fiber line. In an analogous art, Byers discloses at least one optical concentrator device, the remote terminal being connectable to the optical concentrator device via an optical fiber line (col. 1, lines 43-45).

One skilled in the art would have recognized the optical concentrator device connectable to the remote terminal to use the teaching of Byers in the system of Sundaresan et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the optical concentrator device connectable to the remote terminal as taught by Byers in Sundaresan et al. with the motivation being to provide less expensive loops than copper loops by converting switch interfaces to fiber and back to copper at the remote terminal and consist of an optical remote terminal that interfaces with the optical links from the switching system (col. 1, lines 48-52).

For claim 25, Sundaresan et al. disclose wherein the server is connectable to a graphical user interface to enable interaction by a network operator with at least one of the server, the plurality of network facilities and the system database (figure 5, col. 8, lines 5-26).

For claim 26, Sundaresan et al. disclose wherein the server is further configured to identify errors related to at least one of the service order and the provisioning of the DSL service; and wherein information regarding the errors is displayed at the graphical

user interface and error responses are sent from the graphical user interface to the server (figure 12A, col. 19, lines 29-34).

For claim 30, Sundaresan et al. disclose further comprising an interface configured to connect a graphical user interface of the DSL service provider (figure 1, reference 150) with the server (figure 1, reference OSS 190)(col. 4, lines 46-48);

wherein the system database stores is further configured to store service profile data related to at least one service of the DSL service provider, the service profile data comprising at least one parameter related to the service order (figure 17, col. 25, lines 59-67); and

wherein provisioning facilities are configured to implement the service order additionally based on the service profile data (figure 19, col. 29, lines 20-28).

For claim 31, Sundaresan et al. disclose processing orders for high bandwidth connections comprising:

a receiving source code segment that receives a service order requesting the DSL service (figure 11, reference steps 1120-1130)(col. 19, lines 35-37);

an assigning source code segment that assigns a plurality of facilities needed to implement the service order based on provisioning data indicated by the service order (col. 5, lines 21-30), the plurality of facilities comprising at least a remote terminal connectable to a terminal of a DSL subscriber (col. 19, lines 52-56).

Sundaresan et al. do not expressly disclose a determining source code segment that determines an interface corresponding to each of the plurality of facilities, each

interface converting the service order data into a specific protocol corresponding to the assigned facility; and

a configuring source code segment that configures each of the plurality of facilities, using the corresponding interface, to implement the service order based on instructions from a provisioning server.

In an analogous art, Gidwani discloses a determining source code segment that determines an interface corresponding to each of the plurality of facilities, each interface converting the service order data into a specific protocol corresponding to the assigned facility (figure 2A, col. 24, lines 4-36, and col. 27, line 62 to col. 28, line 7); and

a configuring source code segment that configures each of the plurality of facilities, using the corresponding interface, to implement the service order based on instructions from a provisioning server (figure 2A, col. 24, lines 4-36).

One skilled in the art would have recognized the determining source code segment that determines an interface corresponding to each of the plurality of facilities, each interface converting the service order data into a specific protocol corresponding to the assigned facility, and would have applied Gidwani's UIP server in Sundaresan et al.'s service order. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Gidwani's apparatus and method for intelligent scalable switching network in Sundaresan et al.'s processing orders for high bandwidth connections with the motivation being to provide the scalable intelligent multimedia network (col. 23, lines 66-67).

Furthermore, Sundaresan et al. in view of Gidwani do not expressly disclose an optical concentrator device connectable to the remote terminal. In an analogous art, Byers discloses an optical concentrator device connectable to the remote terminal (col. 1, lines 43-45).

One skilled in the art would have recognized the optical concentrator device connectable to the remote terminal to use the teaching of Byers in the system of Sundaresan et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the optical concentrator device connectable to the remote terminal as taught by Byers in Sundaresan et al. with the motivation being to provide less expensive loops than copper loops by converting switch interfaces to fiber and back to copper at the remote terminal and consist of an optical remote terminal that interfaces with the optical links from the switching system (col. 1, lines 4852).

For claim 32, Sundaresan et al. disclose a path determining source code segment that determines at least one path interconnecting the plurality of facilities and a subscriber port of the remote terminal, the subscriber port being configured to connect with the DSL subscriber terminal (figure 19, col. 29, lines 3-34).

For claim 33, Sundaresan et al. disclose a cross-section determining source code segment that determines and implements a cross-connection in at least one of the plurality of facilities to enable the at least one path interconnecting the plurality of facilities and the subscriber port (figure 19, col. 29, lines 3-34).

For claim 34, Sundaresan et al. disclose a memory source code segment that stores configuration data in a system database, the configuration data comprising data

identifying the plurality of facilities assigned to implement the service order, the at least one path interconnecting the plurality of facilities and the subscriber port of the remote terminal, and the cross-connection in the at least one of the plurality of facilities (figure 19, col. 29, lines 3-34).

For claim 35, Sundaresan et al. disclose wherein the provisioning data is derived based on the provisioning data indication in the service order (figure 17, reference step 1710, col. 25, lines 59-65).

For claim 36, Sundaresan et al. disclose wherein the service order indicates the provisioning data by at least one of providing the provisioning data and providing a profile identification that corresponds to parameters that define the DSL service (figure 9, col. 15, lines 55-65, and figure 17, col. 25, lines 59-67).

For claim 37, Sundaresan et al. disclose an error detection source code segment that determines whether the service order comprises erroneous data and, when the service order is determined to comprise erroneous data, initiates display at a graphical user interface of an error message, which identifies the erroneous data, and receives input from the graphical user interface to correct the erroneous data (figure 12A, col. 19, lines 29-34).

For claim 38, Sundaresan et al. disclose processing orders for high bandwidth connections comprising:

a receiving source code segment that receives a service order at a common server via a service order entry system, the service order corresponding to a DSL subscriber (figure 11, reference steps 1120-1130)(col. 19, lines 35-37);

a converting source code segment that converts the service order into provisional steps (figure 17, reference steps 1710, 1720, 1730 and 1740, col. 25 line 59 to col. 26, line 30); and

a facility assignment source code segment that determines facility assignment data related to each of a plurality of facilities needed to implement the provisionable steps (col. 5, lines 21-30), the facility assignment data comprising identification of at least a remote terminal and a subscriber port, connectable to a terminal of the DSL subscriber (figure 19, col. 29, lines 3-19).

However, Sundaresan et al. do not expressly disclose an interface determining source code segment that determining an interface for each of the plurality of facilities, each interface enabling communication with the corresponding one of the plurality of facilities; and

a configuring each of the plurality of facilities to implement the service order based on instructions communicated from the common server to each of the plurality of facilities using the corresponding interface.

In an analogous art, Gidwani discloses an interface determining source code segment that determining an interface for each of the plurality of facilities, each interface enabling communication with the corresponding one of the plurality of facilities (figure 2A, col. 24, lines 4-36); and

a configuring each of the plurality of facilities to implement the service order based on instructions communicated from the common server to each of the plurality of facilities using the corresponding interface (figure 2A, col. 24, lines 4-36).

One skilled in the art would have recognized the interface determining source code segment that determining an interface for each of the plurality of facilities, each interface enabling communication with the corresponding one of the plurality of facilities, and would have applied Gidwani's UIP server in Sundaresan et al.'s service order. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Gidwani's apparatus and method for intelligent scalable switching network in Sundaresan et al.'s processing orders for high bandwidth connections with the motivation being to provide the scalable intelligent multimedia network (col. 23, lines 66-67).

Furthermore, Sundaresan et al. in view of Gidwani do not disclose an optical concentrator device connectable to the remote terminal. In an analogous art, Byers discloses an optical concentrator device connectable to the remote terminal (col. 1, lines 43-45).

One skilled in the art would have recognized the optical concentrator device connectable to the remote terminal to use the teaching of Byers in the system of Sundaresan et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time invention, to use the optical concentrator device connectable to the remote terminal as taught by Byers in Sundaresan et al. with the motivation being to provide less expensive loops than copper loops by converting switch interfaces to fiber and back to copper at the remote terminal and consist of an optical remote terminal that interfaces with the optical links from the switching system (col. 1, lines 48-52).

(10) Response to Argument

A- Response to appellant's argument: The rejection of claims 1-7, 18, 19, 22 and 23 under 35 USC 103 over Sundaresan et al. in view of Gidwani:

The appellant argues with respect to claims 1-7, 18, 19-22 and 23 on page 16, first paragraph, that Sundaresan et al. patent is directed to pre-qualifying service request in order to establish services in a network before the services are provisioned. In response, Sundaresan et al. clearly teach delivery of high bandwidth connection services often requires coordination of several tasks and use of related information. The tasks may be performed in several 'stages' of the service delivery process (actually provisioning DSL services)(col. 1, lines 40-45). To be efficient and effective delivery of high bandwidth connection services, Sundaresan et al. teach the OSS 190 makes a preliminary determination of the availability of the service requested for the user location (col. 16, lines 51-52) because a service provider may not be able to accept orders for the service in an area unless service is already available in the area or until there is an indication of expected date of availability of the service in the area (col. 1, lines 47-52). Furthermore, Sundaresan et al. clearly teach actually provisioning DSL services as recited in claims 1-7, 18, 19, 22 and 23 (col. 2, lines 64-67).

The appellant argues on page 17, first paragraph, that the teachings of Sundaresan et al. are not applicable to the actual provisioning, because the claimed actual provisioning occurs after the notification step 960 of Sundaresan et al. In response, Sundaresan et al. teach the OSS 190 determine a port of min-distribution frame on which the local loop is to be received (section VI. Securing Local Loops, col. 25, line 56 to col. 26, line 30); the OSS 190 contain computer system 500 and network

manager 1830 to provision the virtual circuits on service provider network 150 (section VII. Provisioning Virtual Connections, col. 27, line 15 to col. 28, line 55), and a PVC may be provisioned automatically when a request for a high bandwidth connection is received (section VIII. C. Automatic Provisioning of PVC, col. 28, line 56 to col. 29, line 67). Therefore, Sundaresan et al. clearly teach the actual provisioning DSL services, and are applicable to the actual provisioning.

The appellant argues on page 17, second paragraph, that Sundaresan et al. do not include a provisioning server, since they do not teach actual provisioning, but rather teach pre-qualifying service orders that are later provisioned. In response, Sundaresan et al. teach the OSS 190 enables efficient provision of high bandwidth connections (col. 5, lines 30-31).

The appellant argues with respect to claims 8 and 38 on page 17, second paragraph, that there is no teaching or suggestion of going further and provisioning the services, and certainly no teaching or suggestion of how to actually provision the services, i.e., by converting the service order into provisionable steps. The examiner refers to the same response with respect to claim 1 above.

The appellant argues with respect to claim 24 on page 18, first paragraph, that the server system 1030 clearly does not teach the facility inventory system with which the server of claim 24 communicates to determine the provisioning facilities from the plurality of network facilities needed to implement the DSL service based on the service order. In response, the appellant's attention is directed to Sundaresan et al. at col. 9, section III. E. Examples of Information maintained by OSS (see figures 7A-C, and 8A-J),

where Sundaresan et al. clearly teach the facility inventory system with which OSS 190 communicates to determine the provisioning facilities from the plurality of network facilities needed to implement the DSL service based on the service order.

The appellant argues on page 19, second paragraph, that Gidwani discloses interfacing with these multimedia service that apparently have already been provisioned, in other words, Gidwani does not teach or suggest determining an interface corresponding to each assigned facility for the purpose of provisioning a DSL server. In response, Gidwani clearly teaches dynamic provisioning wherein a service feature provided to the UIP Client can be configured on the UIP Server from the UIP Client (col. 73, lines 2-4).

The appellant argues the resulting hypothetical combination of Sundaresan et al. and Gidwani is not the Applicant's claimed invention of independent claims 1, 8, 18, 24, 31 and 38. The motivation to combine Gidwani's teaching of UIP server 226 in Sundaresan et al. would be to provide an interface for each of the plurality of facilities, each interface enabling communication with the corresponding one of the plurality of facilities for Sundaresan et al.'s OSS 190.

B. The rejection of claims 8-17, 20-21 and 24-38 under 35 U.S.C 103 over Sundaresan et al. in view of Gidwani and further in view of Byers.

The appellant argues with respect to independent claims 8, 24 and 38 on page 21, first paragraph, that Byers does not overcome the deficiencies of Sundaresan et al. and Gidwani discussed above. In response, the examiner refers to the same response with regard to claims 1-7, 18, 19-22 and 23 above.

C. The rejection of the dependent claims under 35 U.S.C. 103 is error.

1. Dependent Claims 2-4, 19-21 and 32-34

The appellant argues with respect to dependent claims 2-4, 19-21 and 32-34 on page 21, that none of the recited references disclose the claimed determining or enable path interconnecting the plurality of facilities and the subscriber the terminal. In response, Sundaresan et al. determine the DSLAM and the port to which the local loop from the user location connects (subscriber terminal means)(figure 19, reference step 1920), determine the switch and the port to which the determined DSLAM connects (figure 19, reference step 1930), allocate a PVC identifier between the determined switch and the DSLAM (figure 19, reference step 1940), determine the switch and the port connecting to the target location (the plurality of facilities means)(figure 19, reference step 1950). Therefore, Sundaresan et al. disclose the claimed determining or enable path interconnecting the plurality of facilities and the subscriber the terminal.

2. Dependent Claims 5 and 35

The appellant argues with respect to dependent claims 5 and 35 that non of the cited references disclose the claimed provisioning data that is derived based at least on part on the provisioning data indication in the service order. In response, Sundaresan et al. teach determine the DSL type (provisioning data) required for providing the selected services (based at least on part on the provisioning data indication in the service order) (figure 17, reference step 1710, col. 25, lines 59-65).

3. Dependent Claims 7, 11, 22, 23, 25, 26, 30 and 37

The appellant argues with respect to dependent claims 7, 11, 22, 23, 25, 26, 30 and 37 that Sundaresan et al. do not teach or suggest displaying errors or erroneous data at a GUI, or correcting errors through input from the GUI. In response, Sundaresan et al. teach that if the address is incorrect, please enter the correct one and notify Covad Custumer Care immediately (figure 12A, reference CUSTOMER INFORMATION)(col. 19, lines 29-34).

4. Dependent Claim 9

The appellant argues with respect to dependent claim 9 that none of the cited references disclose the claimed formatting data from the service order into a common internal format prior to converting the service order into provisional steps. In response, Sundaresan et al. disclose any compatible interface can be used to transfer the data to OSS 190. For example, XML based interface is provided on interface 1015 (figure 10A) (formatting data from the service order into a common internal format), and the OSS 190 processes the received information (converting the service order into provisional steps).

5. Dependent Claim 10

The appellant argues with respect to dependent claim 10 that none of the cited references disclose the claimed validating an intent of the service order with respect to a state of a port of the remote terminal associated the DSL subscriber and provisioning the service order in the remote terminal upon successful validation. In response, Sundaresan et al. disclose determining the DSLAM and the port to which the local loop from the user location connects (the DSL subscriber means)(figure 19, reference step

1920) and determining the switch and the port connecting to the target location (a state of a port of the remote terminal)(figure 19, reference 1950). Sundaresan et al. disclose further the determination may be performed, for example, as described in figure 17, reference step 1780, which confirm availability of local loop if the tests are successful (validating an intent of the service order).

6. Dependent Claims 12-14 and 27-29

The appellant argues with respect to dependent claims 12-14 and 27-29 that non of the cited references disclose the claimed building, deleting or changing at least one virtual path over a the fiber connection between the remote terminal and the optical device. In response, Byers teaches the outside distribution plant (optical device) typically consists of optical links connecting the switching systems to remote terminals such as digital loop carriers. Sundaresan et al. disclose the PVC may be provisioned (building means) automatically upon the reception of an order for the service (figure 19).

7. Dependent Claim 15

The appellant argues with respect to dependent claim 15none of the cited references disclose the claimed configuring each of the plurality of facilities to implement the service order comprising one of building, deleting or changing at least one cross-connection in at least one of the plurality of facilities. In response, Sundaresan et al. disclose the PVC (one cross-connection means) may be provisioned (building means) automatically upon the reception of an order for the service (figure 19).

8. Dependent Claim 16

The appellant argues with respect to dependent claim 16 that none of the cited references disclose the claimed recites enqueuing the provisionable steps after determining the facility assignment data related to each of a plurality of facilities needed to implement the provisionable steps; and sequentially dequeuing the provisionable steps for implementation on a scheduled provisioning date, prior to determining the interface for each of the plurality of facilities. In response, Sundaresan et al. disclose the OSS 190 reserve any resources specified in the order (the reserve port)(enqueuing the provisionable steps after determining the facility assignment data related to each of a plurality of facilities needed to implement the provisionable steps). Sundaresan et al. disclose further if there are sufficient ports for allocation (at the date the service is to commence at the user location), the OSS 190 may pre-qualify the order for the request service (sequentially dequeuing the provisionable steps for implementation on a scheduled provisioning date, prior to determining the interface for each of the plurality of facilities means)(col. 17, lines 22-31).

9. Dependent Claim 6, 17, 30 and 36

The appellant argues with respect to claims 6, 17, 30 and 36 recite, in part, service profile data and/or a profile identification that relate to a service provider and service parameter(s), that Sundaresan et al. teach entering data specific to a user, such as a user location, as opposed to referencing an identifiable profile relating to the service and service parameters. In response, Sundaresan et al. not only teach entering data specific to a user, such as a user location but Sundaresan et al. also teach service

profile data and/or a profile identification that relate to a service provider and service parameter(s) such as DSL type, port and PVC identifier.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/T. D. N./

Examiner, Art Unit 2616

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